

Evidence-based management of off-take-supplier business relationships: automated supply chain management systems



# 1. Pioneer partnership

This practice was successfully implemented in the Pсалtry/Cassava partnership in Nigeria. Pсалtry aimed to aggregate 100,000 tons per year of cassava tubers, which it will process into starch and supply to Nigeria Breweries. The strategy was to work with local cassava farmers to produce and supply high quality cassava tubers through a formal engagement with Pсалtry. The partnership also targeted to increase farmers' productivity to allow Pсалtry to supply starch at a competitive price. The partnership with 2SCALE enabled Pсалtry to accelerate the expansion and strengthening of Pсалtry's outgrower scheme, increasing the number of farmers supported from less than 1,000 at the start of the partnership to over 3,000 as of 2018. Various capacity building interventions were implemented that led to improved farm productivity and access to finance and other services.

The growth in number of farmers meant additional field staff had to be recruited to manage these outgrowers. Registration and maintaining contact with farmers were big challenges for Pсалtry. Doing these tasks manually meant errors were bound to occur, on top of their time consuming and laborious nature. Pсалtry could not easily trace farmers' produce, maintain quality standards, and manage financing of farming operations. These affected the volume of cassava that Pсалtry could aggregate, and recoveries of credit became difficult. A more efficient supply chain management system was therefore required to overcome these constraints.



A Pсалtry cassava plantation

# 2. Replicable practice

Digital platforms can provide a lot more efficient and transparent management of supply chains. One of these platforms, Farmforce, provides a cloud-based advanced farming platform to digitize all farmer records, with a web and mobile application to contract smallholder farmers. It allows agri-businesses like Psaltry to log and store information on each farmer, volumes produced, inputs used, training received, etc. This information can also be shared with farmers to facilitate their own planning. The mobile app is used by field staff of the company to collect primary data of farmers including biodata, farm size, GPS location, farm activities, expected date of harvest etc. whereas the web version enables the company to derive several useful insights from the primary data generated and uploaded by field staff. The platform can also support monitoring of field staff and their activities and facilitates harvest planning. Similar platforms are already being replicated in Burkina Faso (Sourcetrace) and Cote d'Ivoire (CropIn).

To summarize, this practice is addressing constraints in terms of:

<p>Inclusion</p>	<ul style="list-style-type: none"><li>• <b>Ownership:</b> The platform is owned by Farmforce. However Psaltry and their farmer network had access through an annual license purchase. With this license, Psaltry had access to all the information related to their business. The smart devices used in data collection and generating insights are owned by the business champion.</li><li>• <b>Voice:</b> Insights generated from the Farmforce platform enables key decision making and planning by Psaltry and their outgrowers. For instance, the platform provides real time data on volumes supplied by each farmer (and quality indicators) which can facilitate negotiations for improved prices. Planning agronomic trainings with farmers improved and field officers spent a lot more time supporting farmers (time saved from manual data collection). Digitizing the loan administration process also ensured transparency in dealing with farmers.</li><li>• <b>Risks:</b> Based on the data gathered, Psaltry can forecast how much cassava is expected to be produced by farmers and the logistics required to aggregate same. Outgrower management also becomes seamless with digital farmer profiles that enables effective tracking of all inputs delivered to farmers.</li></ul>
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# 3. Preconditions for replication

## **Organized field staff/enumerators for data collection**

The key to effective functioning of the Farmforce (and any other) digital platform is data. During the initial stage, extensive data collection is required to develop digital profiles of farmers and other stakeholders within the partnership. This data collection can be time consuming if field support is inadequate. Where feasible, the BSS coaches can support in the data gathering.

## **Access to smart phones and reliable internet connection**

Farmforce mobile app has offline functionality (which enables data collection without internet) but requires internet access to sync data whereas the web version is completely run online. This makes it challenging to access the dashboard while in the field. Though not much of a constraint as the dashboard is usually accessed only by the top management, a reliable internet connection is needed to do so.

## **Payment of annual license fee**

Farmforce charges an annual fee based on the number of users registered, farmers to be reached and functionalities supported. 2SCALE may support the pilot of the platform for the first year and expects the business champion/users to continue thereafter. Psaltry have realised the value of the Farmforce platform and proceeded to pay the license fee in subsequent years without 2SCALE's further support.

# 4. Results achieved

- Psaltry now has a real-time, digital database of all the farmers they work with and can see Google Earth maps of each field location and status of all cassava crops being grown. Previously the field staff would know farmer locations, but it was difficult to share this with management in the office. Now they can view the data on the web platform.
- Their volumes of supply to Nigerian breweries have grown because they can communicate clear supply forecasts based on expected harvests.
- Due to the increased transparency, local financial institutions also increased their lending to Psaltry farmers.
- Traceability of cassava to farmer/farm has been enhanced.

## Want to know more?

To know more about this practice, please reach out to Patrick Obodoeke, [pobodoeke@2scale.org](mailto:pobodoeke@2scale.org) 2SCALE Digital Innovations Specialist.

You can also read more on this case through at:

- [http://farmforce.com/wp-content/uploads/2020/05/Psaltry-Nigeria-Farmforce\\_Psaltry\\_Case\\_Study.pdf](http://farmforce.com/wp-content/uploads/2020/05/Psaltry-Nigeria-Farmforce_Psaltry_Case_Study.pdf)

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